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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/474,114	12/29/99	HAIDER K	MO-5457/MD-9

IM22/0809

BAYER CORPORATION
PATENT DEPARTMENT
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EXAMINER	
SERGENT, R	
ART UNIT	PAPER NUMBER
1711	10

DATE MAILED: 08/09/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
09/474,114	Haider et al.
Examiner	**Art Unit**
Rabon Sergent	1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *three* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Mar 14, 2001* .

2a) ☐ This action is **FINAL.** 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-11* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 11

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other:

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-11 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 10 and 13 of U.S. Patent No. 6,166,166. Although the conflicting claims are not identical, they are not patentably distinct from each other because each set of claims is drawn to a thermoplastic polyurethane derived from a polyisocyanate, an equivalent chain extender, and a hydroxyl terminated polybutadiene.

3. Despite applicants' arguments, applicants' claims are open to the process limitations of the claims of the patent. Furthermore, the relied on claims of the patent do not limit the isocyanate to an aromatic isocyanate; rather the claimed isocyanate of Taylor et al. includes aliphatic and cycloaliphatic diisocyanates. It is noted that preferred diisocyanates are dicyclohexylmethane diisocyanate, isophorone diisocyanate, and hexamethylene diisocyanate. Furthermore, it would have been obvious to one of ordinary skill to use an aliphatic or cycloaliphatic diisocyanate in a light-stable polyurethane.

4. Claims 1-8, 10, and 11 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, and 4-8 of U.S. Patent No. 6,211,324. Although the conflicting claims are not identical, they are not patentably distinct from each other because each set of claims is drawn to a thermoplastic polyurethane derived from a polyisocyanate, an equivalent chain extender, and a hydroxyl terminated polybutadiene.

5. Despite applicants' response, the instant claims are open to the diol chain extenders of the patent. In fact, instant claim 8 specifies asymmetric diols.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was

commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-11 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yokelson et al. ('543).

Patentees disclose the production of hydrophobic polyurethanes derived from the reaction of difunctional polybutadienes, having molecular weights which overlap applicants' diols, with diisocyanates, such as isophorone diisocyanate and dicyclohexylmethane diisocyanate, and diol chain extenders. Patentees further disclose that prepolymer techniques may be employed to produce the polymer. Therefore, applicants' prepolymer isocyanate content is considered to be inherently met by the reference. See abstract; column 2, lines 45+; column 3; and column 5, lines 1-16.

8. In addition to the (cyclo)aliphatic diisocyanates, patentees disclose the use of aromatic diisocyanates to produce the polyurethanes. If the reference is determined to not be anticipatory, in view of this additional disclosure, the position is taken that one of ordinary skill in the art seeking light stable polyurethanes would have been motivated to utilize the disclosed (cyclo)aliphatic diisocyanates, since it has long been known that polyurethanes derived from

nonaromatic diisocyanates possess superior light stability properties, as compared to polymers derived form aromatic isocyanates.

9. Despite applicants' argument that Yokelson et al. teach only the use of aromatic isocyanates to obtain suitable polyurethanes, Yokelson et al., in fact, teach the use of aliphatic and cycloaliphatic isocyanates at column 5, lines 10-14 and claim 11.

10. Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Taylor et al ('166).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

11. Claims 1-8, 10, and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Haider et al. ('324).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the

inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

12. Each of the aforementioned references within paragraphs 10 and 11 disclose the production of polyurethanes from aliphatic or cycloaliphatic diisocyanates, diol chain extenders, and polyols which meet the instantly claimed polyol.

13. Claims 1, 2, 4-8, 10, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Frisch et al. ('961).

Patentees disclose a polyurethane elastomeric composition derived from the reaction of a (cyclo)aliphatic diisocyanate with a polybutadiene diol and a diol chain extender. See abstract and column 2.

14. Claims 1, 2, 4, 6, and 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Huang et al. (Tensile Property of Modified Hydroxyl-Terminated Polybutadiene-Based Polyurethanes).

The reference discloses a polyurethane elastomeric composition derived from the reaction of a 4,4'-dicyclohexylmethane diisocyanate with a polybutadiene diol and 1,4-butanediol. See page 1236.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (703) 308-2982.

R. Sergent/om
June 5, 2001

RABON SERGENT
PRIMARY EXAMINER